

National Aeronautics and Space Administration Goddard Space Flight Center

Wallops Flight Facility, Wallops Island, Virginia

# Inside Wallops

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March 5, 2001

### NASA Planes to Fly From Hong Kong, Japan Researchers trace evolving air chemistry over Pacific

Wallops aircraft crews on the P-3B and C-130 are in the South Pacific for the next six weeks, not on spring break but supporting a NASA atmospheric science mission.

Spring has arrived in Hong Kong and so have the research planes, scientists and their equipment. It is the beginning of the greatest seasonal airflow from Asia across the Pacific and an ideal time to collect data for the latest in a series of NASA atmospheric science missions used to study how natural and human-induced changes affect our global climate.



PAO Picture

The P-3B aircraft prior to departing on the TRACE-P mission.

The Transport and Chemical Evolution over the Pacific (TRACE-P) experiment, headed by NASA Langley Research Center, is scheduled for March through April. TRACE-P will use two specially equipped NASA aircraft to measure gases and identify the chemical makeup of air off the East Asian coast over the Pacific. The mission will start its 45-day operations from Hong Kong and finish out of Yokota Air Force Base near Tokyo.

In addition to the Dryden Flight Research Center DC-8 and the P-3B from Wallops Flight Facility, scientists will gather information from ground stations and satellites to plan flight patterns and interpret measurements taken on the aircraft. The Wallops C-130 is providing logistical support.

"While NASA administers the TRACE-P program, it's important to realize all of the expertise that's necessary to make the measurements is on these aircraft," said Dr. Jim Crawford, TRACE-P Deputy Mission Scientist and NASA Langley researcher.

"We have to bring together researchers from international universities, other government labs and from within NASA to make an adequate assessment of what's happening over the Pacific." A major goal of TRACE-P is to understand the chemical makeup and reactions of air coming from Asia. Researchers want to study how the chemical reactions and movement affect the air as it moves away from Asia across the Pacific. With the rapid industrialization and increased energy use — mostly in the form of fossil fuels — scientists expect emissions to increase as East Asia continues to develop.

"Out of all the industrialized regions in the world, North America and Europe are at a much higher latitude,"

Crawford added. "And since air chemistry is driven by sunlight, the Asian emissions happening at a tropical latitude potentially have a very different chemical evolution.

TRACE-P is part of the long series of NASA Global Tropospheric Experiments (GTE) and a follow-up to earlier atmospheric science investigations in 1991 and 1994. These exploratory missions studied the

Asian outflow — air flowing over the continent to and across the Pacific - and how seasons and geography affect the chemistry and movement of air.

GTE is aimed at a better understanding of worldwide chemistry of the troposphere. Over the past twenty years, GTE has conducted missions in the Amazon, the Arctic, the tropical Atlantic, and the Pacific to study both natural and man-made processes that determine the troposphere's chemical make-up.

#### IT Security Warning

There has been an increase recently in the number of IT Security related incidents specifically hacking or cyber attacks. You can help reduce our vulnerability by confirming that your systems do have the current anti-virus software and service pack(s).

DO NOT OPEN ANY ATTACHMENT that ends with exe or vbs, unless you are absolutely sure of its origin, and are expecting that attachment. This measure is by no means fail proof but will prevent the proliferation of viruses and improve resistance to hacking. Should you have any questions or concerns, contact the ODIN Customer Outreach Hotline on 301-306-2643.

### Wallops Shorts...... On the road

Scott Webb and Jay Savage, Information Services and Advanced Technology, along with Keva Scarborough and Betty Flowers, Public Affairs Office, took part in a Career Fair at Northampton High School for students from Broadwater Academy and Northampton High on Feb. 28.

Jim Nichols, GHG, did a weather presentation and read to lower school students at Worcester Prep on March 2.

Mike Savoy, Teacher on Loan, gave a presentation on NASA resources for educators during a workshop for Math and Science Teachers (MAST) held at Salisbury State University, March 3.

### New appointment

Lester A. McGonigal has been selected Chief of the Safety Office effective February 25.

#### Employee dies in crash

Michael East, an electrician with H&H, died Saturday, March 3 in the crash of an Air National Guard C-23 Sherpa aircraft. East was a Tech Sgt. with the 203<sup>rd</sup> Red Horse Civil Engineering Flight, Virginia Air National Guard based at Camp Pendleton, VA. He along with 17 other members of his unit and three crewmen from the Florida Air National Guard were killed in the crash south of Macon, GA. They were in route from Florida to Oceana Naval Air Station, Virginia Beach. East is survived by Beth Manske, H&H, and a daughter, Savannah. Sincere sympathy is extended to his co-workers, family and many friends.

## Shuttle Discovery to Carry ISS Crew Shift Change

The launch of the Space Shuttle Discovery has been set for 6:42 a.m. EST, March 8 on a mission to the International Space Station that will make NASA's first crew shift change in orbit and carry an Italian-built Station logistics carrier filled with laboratory experiments and equipment.

At the end of its 12-day flight, Discovery will bring home the first Station crew, Commander Bill Shepherd, Pilot Yuri Gidzenko and Flight Engineer Sergei Krikalev. They will be completing more than four months spent in orbit aboard the complex. Discovery also will take aloft the first Station logistics carrier. Leonardo, an Italian-built logistics module will be filled with the first major laboratory experiments as well as key equipment.

### C'mon, Spring!!!

by Ted Wilz, Senior Meteorologist

As expected, February was a bleak, cold month. Although the average temperature was a cold 39.7 degrees, it was actually 2.5 degrees above normal. No new record highs or lows were set during the month. The warmest temperature of the month was a 63 degree reading that occurred on the February 10 and again on the 21st. The warmer temperature provided a teasing taste of spring, bringing golfers, hikers and beach-goers out for a brief spell. The coldest temperatures of the month were the 20 degree readings that occurred on February 4, 18 and 19.

Winter continued to flirt with us, precipitation-wise, especially on February 22 when we received an inch of snowfall, followed by rain that turned into freezing rain. Driving to work and just getting from the parking lot to the office became a real challenge. The grim reminder of winter's presence was all too inevitable that day. Just a few miles down the road, across the Bay and to our north as close as Salisbury, things were much worse with five to six inches of snow reported. We had 2.69 inches of precipitation for the month, which is below our monthly average of 3.02 inches. The only measurable snow during the month, February 22, was 2.3 inches below average.

What sort of weather lies ahead for us in April? Besides trees budding, planting gardens and the crack of a baseball, April offers an end to the winter doldrums and cold temperatures. April is usually a gorgeous month along the Eastern Shore and is the driest month of the year. We usually average only 2.70 inches of rainfall.

The old "April showers brings May flowers" adage doesn't quite work here. May is the most showery and wettest month in this region. During April, we usually have 10 days with measurable precipitation (no snow!). There are usually two to three days with thunderstorms, a sure sign of spring.

During April, temperatures also modify quite nicely. High temperatures start out around 60 degrees, but by month's end are in the mid 60's. The record high for the month was a 93 degree reading that occurred on April 26, 1990. Average lows are near 40 degrees at the beginning of April but warm to the upper 40's as May approaches.

Although temperatures warm comfortably, it is possible, especially in early April, to see morning temperatures below freezing. Freezes have occurred as late as April 25 (in 1994). Temperatures as low as 24 degrees have occurred during the month. So gardeners, beware, you often will have to be dealing with the last vestiges of winter weather with early April freezes.

### National Women's History Month March 2001

National Women's History Month grew out of an effort to recognize and celebrate the accomplishments of women in American History.

In 1978, the Education Task Force of the Sonoma County (California) Commission on the Status of Women initiated a "Women's History Week."



National Women's History Project At the request of museums, libraries, and educators across the country, the National Women's History Project petitioned Congress in 1987 to expand the celebration to the entire month of March.

A National Women's History Month Congressional Resolution was quickly passed with strong bipartisan support in the House and the Senate.

The theme for this year - "Celebrating Women of Courage and Vision" - emphasizes the joy in recognizing women's accomplishments.

For more information on National Women's History Month visit: <a href="https://www.nwhp.org">www.nwhp.org</a> Other sites of interst are: "There's Space in My Life" at www.nasa.gov/women/welcome.html; and the Women of Wallops web site that features upcoming events at Wallops: www.wff.nasa.gov/~FWP/

### Construction of Facilities Management

Wallops Flight Facility April 16-20, 2001

This is a residential program for civil service employees. Lodging, meals and tuition will be funded by NASA Headquarters.

Course Objective: To promote an understanding of the NASA Construction of Facilities Management (CoF) process, enhance CoF project management skills, and increase the effectiveness of CoF projects by assessing management and project tools.

If you have questions, contact Carolyn Kriebel (RGI, Inc.) at 703-820-4900, extension 108, or by e-mail at ckriebel@rgi-inc.com.

### American Red Cross Blood Drive

March 13, 2001 9:30 a.m. to 2:30 p.m. Building F-3

Currently, there is an urgent appeal for blood donations. If you have not donated in the past, please consider rolling up your sleeve to "give the gift of life." The Red Cross representative is providing a special thank-you gift to each first-time donor (and several other lucky donors). Call the Health Unit, x1266, to schedule an appointment.

Some facts to remember: -Each donation could possibly save three to four lives

-Each donation produces seven different blood products

Any healthy person at least 17 years of age with a minimum weight of 110 pounds can donate every 8 weeks. The process of giving blood is always under the supervision of a Medical Unit Supervisor. The procedure includes a medical check, actual donation and some time for relaxation and refreshments. Be sure to get sufficient rest the night before and eat a well-balanced breakfast and lunch the day you donate.

You never know whose life you may help save.

### Carolina Shag Dance Lessons

Tuesday nights from 5-6 p.m.

Wear shoes that are comfortable and are smooth on the bottom (leather, like loafers) that will stay on your feet.

For more information or to register, contact Jean Albaugh, x1039, or by email: Jean.A.Albaugh.1@gsfc.nasa.gov

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